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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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HEWLETT-PACKARD COMPANY
Intellectual Property Administration
P.O. Box 272400
Fort Collins, CO 80527-2400

EXAMINER

KISS, ERIC B

ART UNIT

PAPER NUMBER

2192

DATE MAILED: 11/08/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/993,229

Applicant(s)

BERNADAT ET AL.

Examiner

Eric B. Kiss

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 August 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,4-6,8,9,12-14,16 and 18-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,4-6,8,9,12-14,16 and 18-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. The reply filed 2 August 2005 has been received and entered. Claims 1, 4-6, 8, 9, 12-14, 16, and 18-20 are pending.

Response to Arguments

2. Applicant's arguments with respect to claims 1, 4-6, 8, 9, 12-14, 16, and 18-20 have been considered but are moot in view of the new ground(s) of rejection.
3. The Examiner agrees that a processor cache is not equivalent to a class cache of a class loader (see Applicant's remarks, p. 8, paragraph 2; p. 9, paragraph 4). However, the Examiner asserts that the Gerard reference discloses caching of loaded classes in, for example, col. 8, lines 53-62. In the cited section, a determination is made as to whether a selected class is already loaded, and if so, returning the already-loaded class. It should be noted that the system of the Gerard reference uses a JAVA virtual machine environment (see, for example, col. 5, lines 21-32). Class caching is standard practice in the field of class loaders, and in particular, JAVA virtual machine class loaders. See e.g., Zhenyu Qian et al., "A Formal Specification of Java™ Class Loading," 2000, ACM (prior art made of record with this Office action), section 2.4 on pp. 327-28 (describing in more detail class caching for a Java™ virtual machine environment).

Specification

4. The use of trademarks, such as JAVA, has been noted in this application. Trademarks should be capitalized wherever they appear (capitalize each letter or

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accompany each trademark with an appropriate designation symbol, *e.g.*, TM or ®) and be accompanied by the generic terminology (use trademarks as adjectives modifying a descriptive noun).

Although the use of trademarks is permissible in patent applications, the proprietary nature of the marks should be respected and every effort made to prevent their use in any manner which might adversely affect their validity as trademarks.

Claim Rejections - 35 USC § 112

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claims 4-6 and 12-14 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 4-6 depend from cancelled claim 3. In the interest of compact prosecution, claim 4 is subsequently interpreted as being dependent from claim 1, for the purpose of further examination.

Claims 12-14 depend from cancelled claim 11. In the interest of compact prosecution, claim 12 is subsequently interpreted as being dependent from claim 9, for the purpose of further examination.

Claims 5, 6, 13, and 14 contain the trademark/trade name JAVA. Where a trademark or trade name is used in a claim as a limitation to identify or describe a particular material or product, the claim does not comply with the requirements of 35

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U.S.C. 112, second paragraph. See *Ex parte Simpson*, 218 USPQ 1020 (Bd. App. 1982).

The claim scope is uncertain since the trademark or trade name cannot be used properly to identify any particular material or product. A trademark or trade name is used to identify a source of goods, and not the goods themselves. Thus, a trademark or trade name does not identify or describe the goods associated with the trademark or trade name. In the present case, the trademark/trade name is used to identify/describe a particular programming language environment and, accordingly, the identification/description is indefinite.

Claim Rejections - 35 USC § 102

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

8. Claims 1, 4, 8, 9, and 12 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. 5,974,428 (Gerard et al.).

As per claim 1, *Gerard et al.* discloses:

establishing a mapping of original class names and original method names in a first set of classes and methods to corresponding substitute class names and method names in a second set, wherein the classes and methods in the second set change the

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functionality of the classes and methods in the first set (see, for example, Fig. 2, col. 6, line 58, through col. 7, line 44);

in response to loading a class file of a class in the first set, replacing in the class file original class names and method names with corresponding substitute class names and method names (see, for example, Fig. 2, col. 6, line 58, through col. 7, line 44);

instantiating classes and invoking methods referenced by the substitute class and method names in lieu of classes and methods referenced by the original class and method names (see, for example, Fig. 2, col. 6, line 58, through col. 7, line 44); and

caching in a class cache on the computing system the class file having the substitute class names and substitute method names (see, for example, col. 8, lines 53-62).

As per claim 4, *Gerard et al.* further discloses replacing the original class names with the substitute class names in a constant pool within the class file, and changing in the class file method invocation bytecodes from references to original methods to references to substitute methods (see, for example, Fig. 2, col. 6, line 58, through col. 7, line 44, and in particular, col. 7, lines 30-37; Note that in the standardized class file format for JAVA programming language classes (such as those classes disclosed by *Gerard et al.*), the class name is stored in a constant pool; for further detail, see “The Java Virtual Machine Specification, Chapter 4, The class File Format,” 1999, Sun Microsystems (prior art made of record in this Office action), the features of which are considered inherent in the JAVA virtual machine environment disclosed by *Gerard et al.*).

As per claim 8, this is an apparatus version of the claimed method discussed above (claim 1). *Gerard et al.* further discloses such an apparatus (see, for example, Fig. 1).

As per claims 9 and 12, these are “computing arrangement” versions of the methods discussed above (claims 1 and 4). *Gerard et al.* further discloses such a “computing arrangement (see, for example, Fig. 1).

Claim Rejections - 35 USC § 103

9. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

10. Claims 16-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fresko et al., US Patent No. 5,966,702 (hereinafter Fresko), in view of U.S. 5,974,428 (Gerard et al.).

As Per claim 16, Fresko teaches a method for processing a downloadable application program, comprising:

“downloading the downloadable application program from a server system to a client system, wherein the downloadable application program includes a class file” (E.g. see col. 3:41-54);

“executing the downloadable application program on the client system” (E.g. see FIGURE 1, client 102 and associated text);

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“loading a class file in response to execution of the downloadable application program” (E.g. see col. 3:42-64); and

“during execution of the downloadable application program resolving each reference to a substitute class name in the class file” (E.g. see col. 2:62 to col. 3:15).

Fresko does not explicitly disclose teach mapping and replacing of substituted class name. However, Gerard in an analogous art teaches “mapping and replacing of substitute class name”. (E.g. see col. 5:19-32). Therefore, it would have been obvious to incorporate the teaching of Gerard into the teaching of Fresko to map substituted class name. The modification would have been obvious because one of ordinary skill in the art would have been motivated to program a loader to map old class names to new class names or to substitute one class name for another class name (E.g. see col. 5:29-32).

Fresko and Gerard each further teach, “caching the class file in a class cache,” upon loading the class. Fresko, col. 47, line 57, through col. 48, line 10; Gerard col. 8, lines 53-62.

As Per claim 18, the rejection of claim 16 is incorporated and further Fresko and Gerard teaches:

“mapping data from the server system to the client system along with the downloading of the downloadable application program” (see as noted above of Claim 16, e.g. see Gerard col. 5:19-32).

As Per claim 19, the rejection of claim 16 is incorporated and further Fresko and Gerard teach:

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“configuring the client system with the mapping data prior to the downloading of the downloadable application program” (see as noted above of Claim 16, e.g. see Gerard col. 5:19-32).

As Per claim 20, the rejection of claim 16 is incorporated and further Fresko and Gerard teach:

“statically configuring a class loader with the mapping data prior to downloading the downloadable application program” (see as noted above of Claim 16, e.g. see Gerard col. 5:19-32).

Conclusion

11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

12. Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Eric B. Kiss whose telephone number is (571) 272-3699. The Examiner can normally be reached on Tue. - Fri., 7:00 am - 4:30 pm. The Examiner can also be reached on alternate Mondays.


If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, Tuan Dam, can be reached on (571) 272-3695. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Any inquiry of a general nature should be directed to the TC 2100 Group receptionist: 571-272-2100.

EBK / *EBK*
October 24, 2005


TUAN DAM
SUPERVISORY PATENT EXAMINER